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Anti-Caveolin 1 (pY14) Antibody

Rabbit polyclonal antibody to Caveolin 1 (pY14)
Catalog # AP59979

Product Information

Application	WB, IP
Primary Accession	Q03135
Other Accession	P49817
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog, SARS
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20472

Additional Information

Gene ID	857
Other Names	CAV; Caveolin-1
Target/Specificity	Recognizes endogenous levels of Caveolin 1 (pY14) protein.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IP~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

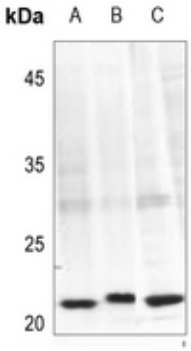
Name	CAV1
Synonyms	CAV
Function	May act as a scaffolding protein within caveolar membranes (PubMed:11751885). Forms a stable heterooligomeric complex with CAV2 that targets to lipid rafts and drives caveolae formation. Mediates the recruitment of CAVIN proteins (CAVIN1/2/3/4) to the caveolae (PubMed:19262564). Interacts directly with G-protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed:17287217). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (By similarity). Negatively regulates TGFB1-mediated activation of SMAD2/3 by mediating the internalization of TGFBR1 from membrane rafts leading to its subsequent degradation (PubMed:25893292).

	Binds 20(S)- hydroxycholesterol (20(S)-OHC) (By similarity).
Cellular Location	Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:P33724} Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae
Tissue Location	Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

Background

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Caveolin 1 (pY14). The exact sequence is proprietary.

Images



Western blot analysis of Caveolin 1 (pY14) expression in SGC7901 (A), SGC7901-H2O2-5min (B), HEK293T (C) whole cell lysates.